ma. at a temperature of 15° C. for 52 hours. During this time the rate of flow of the liquid of the elution mixture per unit of time was decreased in the ratio of 30:1.

In FIG. 3, P is the curve obtained from the recorder RG which shows the distribution of the proteins. The activities of the enzymes were determined separately in individual fractions. Curve PA=proteinase, curve A/E=amidase/esterase, curve K_1=kollagenase 1 (clostridiopeptidase A, EC 3, 4.4.19), curve K_2=kollagenase 2, curve Pi=pigments.

This example shows clearly that through the present invention a simple and unobjectionable efficient process and elution system has been obtained. At the same time, however, the essential advantage is maintained that the relative concentration of the separated fractions in the extract correspond to those in the gel itself. Thus, elution curves can be obtained which have the appearance of extinction curves as obtained through direct photometrization of their distribution in the gel. At the same time, however, an analytic interpretation of the fractions isolated according to the present invention can be carried out.

The preceding specific embodiment is illustrative of the practice of the invention. It is to be understood, however, that other expedients known to those skilled in art or discused herein may be employed without departing from the spirit of the invention or the scope of the appended claims.

I claim:

1. A process for the quantitative determination and obtaining of product fractions of a mixture of substances which comprises the steps of causing a mixture of substances to migrate through a carrier material, infiltrating a buffer solution through said carrier material whereby said mixture of substances are separated into individual fractions during said migration through said carrier material, eluting said separated substances on emergence from said carrier material by means of an elution liquid, adapting the elution rate to the migration speed of said separated substances whereby the concentration of said separated substances in said elution liquid is proportional to the true content of said separated substances in said mixtures of substances, and separately recovering said elution liquid containing therein a concentration of said separated substances proportional to the true content of said separated substances in said mixture of substances.

2. The proces of claim **1** wherein said mixture of substances is caused to migrate through said carrier material by the influence of gravity.

3. The process of claim **1** wherein said mixture of substances is caused to migrate through said carrier material by the influence of an electrical field.

4. The process of claim **1** wherein said carrier material is a gel exercising a molecular sieve effect.

5. The process of claim **4** wherein said gel is a starch gel.

6. The process of claim **4** wherein said gel is a polyacrylamide gel.

7. The process of claim **1** wherein said adapting of the elution rate to the migration speed of said separated substances is effected through varying the flow speed of said elution liquid in said eluting step.

8. The process of claim **7** wherein said flow speed of said elution liquid in said eluting step is decreased during said eluting step in a ratio of 30:1.

9. The process of claim **3** wherein said adapting of the elution rate to the migration speed of said separated substances is effected through varying the electrical field.

10. The process of claim **1** wherein said adapting of the elution rate to the migration speed of said separated substances is effected through varying the temperature of said elution liquid.

11. The process of claim **1** wherein said adapting of the elution rate to the migration speed of said separated substances is effected through varying the temperature of said buffer solution.

12. The process of claim **1** wherein said adapting of the elution rate to the migration speed of said separated substances is effected through varying the proportion of a mixture of elution liquids by gradually decreasing during said eluting step that part of said elution liquid in which said individual fractions are most adapted for a fast elution.

13. The process of claim **1** wherein said recovery step is effected through a through-flow registering photometer having means to effect the adapting of said elution rate to said migration speed of said separated substances.

14. A device for the quantitative determination and obtaining of product fractions of a mixture of substances which comprises a separation chamber filled with a carrier material and buffer solution, means for feeding a mixture of substances to be separated at one end of said separation chamber, said mixture of materials to be separated having fractions having separate predetermined migration speeds through said carrier material, an elution chamber attached to the other end of said separation chamber, means to feed an elution liquid into and out of said elution chamber, and means to adjust the rate of elution of said elution liquid in said elution chamber proportionally to said predetermined migration speed of the fractions of said mixture of materials to be separated.

15. The device of claim **14** wherein said means to adjust said rate of elution of said elution liquid in said elution chamber proportionally to said predetermined migration speed of the fractions of said mixture to be separated is a pump continuously adjusting the rate of feed of said elution liquid and means to control the output of said pump continuously.

16. The device of claim **15** wherein said means to control the output of said pump continuously, is continuously decreasing the output of said pump.

17. The device of claim **15** wherein said means to control the output of said pump continuously is a throttle valve continuously decreasing the output of said pump.

18. The device of claim **14** wherein said means to adjust said rate of elution of said elution liquid in said elution chamber proportionally to said predetermined migration speed of the fractions of said mixture to be separated is a heat exchanger, means to pass said elution liquid through said heat exchanger before feeding said elution liquid into said elution chamber and means to continuously control the heat input to said heat exchanger.

19. The device of claim **14** wherein said means to adjust said rate of elution of said elution liquid in said elution chamber proportionally to said predetermined migration speed of the fractions of said mixture to be separated is a buffer-solution chamber around said separation chamber and interconnected therewith at both ends, a heat exchanger within said buffer-solution chamber, a buffer solution within said buffer-solution chamber and means to continuously control the heat input to said heat exchanger.

20. The device of claim **14** wherein said means to adjust said rate of elution of said elution liquid in said elution chamber proportionally to said predetermined migration speed of the fractions of said mixture to be separated is a buffer solution chamber around said separation chamber and interconnected therewith at both ends, a buffer solution within said buffer-solution chamber, means to create an electrical field in said buffer-solution chamber and through said separation chamber and means to continuously control said electrical field.

21. The device of claim **14** including a throughflow registering photometer, means to pass said elution liquid out of said elution chamber and through said through-flow registering photometer, said through-flow registering photometer developing a signal which effects said means to adjust said rate of elution of said elution liquid in